


ETCR080D Large Caliber Clamp DC Current Sensor

User Manual

Thanks for your purchase of ETCR080D Large Caliber Clamp DC Current Sensor of our company. For better use of the product, please make sure:

- to read this user manual in details.
- to abide by the safety regulations and precautions strictly.



- Under any circumstance, it shall pay special attention on safety in use of this sensor.
- Pay attention to words and symbols stick on the panel.
- Keep the pliers clean, maintenance regularly.
- Stop using the sensor when there is a rupture or break.
- Please don't keep or store the sensor in the spot with high-temperature and moisture, or condensation, and under direct daylight radiation for a long time.
- This sensor is only to be used, disassembled, and repaired by qualified personnel with authorization.
- When it may cause hazard by continuous use for the reason of the sensor itself, it shall immediately stop using it and deposit it at once, leaving it for disposal by authorized agency.
- For risk of danger icon in manual , users must perform safety operations strictly in compliance with the manual content.

I . Introduction

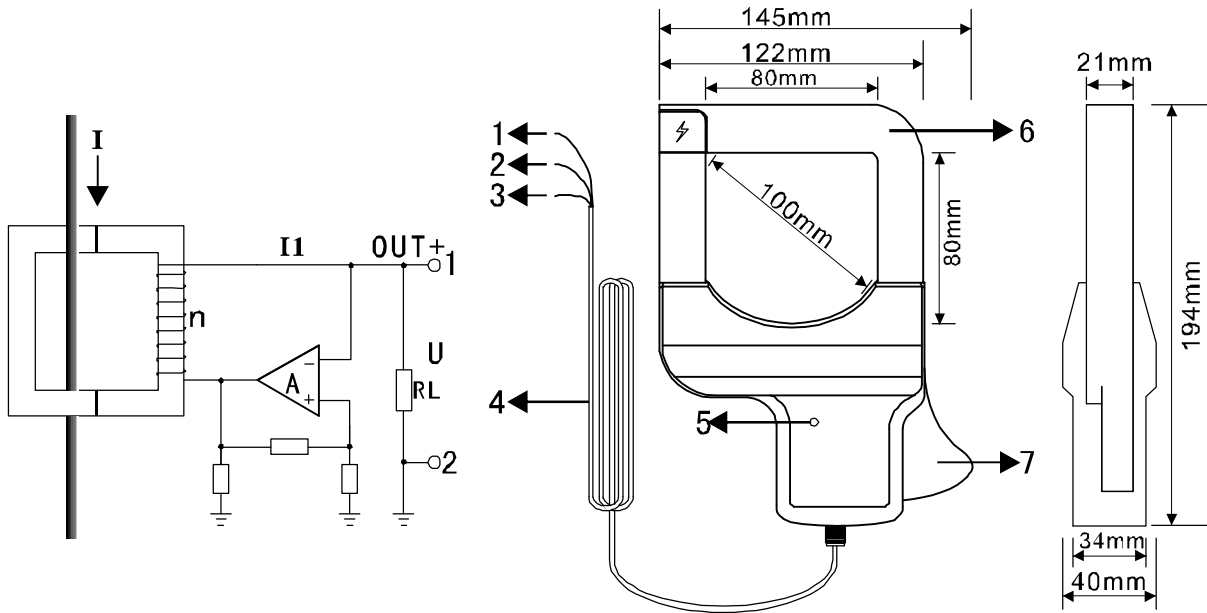
ETCR080D Large Caliber Clamp DC Current Sensor is used for measurement of high accuracy DC current, leakage current. Adopt the latest CT technology and shielding technology. It is portable, clamp design, no need to disconnect the measured circuits, non-contact, safe and fast, can be connected with industrial control equipment, data recorder, oscilloscope, high precision digital multi-meter, etc. Widely applied in electricity, communication, meteorology, railway, oilfield, construction, measurement, scientific and research teaching unit, industrial and mining enterprises.

II . Technical Specifications

Function	Measurement of DC current, leakage current
Test mode	Clamp CT
Power Supply	9V DC
Rated Power	2mW
Clamp Size	80mm×80mm
Range	0-10A DC
Resolution	10mA DC
Accuracy	±3.0%FS(50Hz/60Hz; 23℃±2℃, below 70%RH, keep the wire be in the center of clamp)
Coils Turn	1: 800
Signal Output	2.5mV/10mA (0-10A/0-2.5V)
Output Interface	Red wire: positive power input; Yellow wire: ground; White wire: positive signal output
Output Wire Length	2m
Measured Wire Position	Approximately in the geometric center of the clamp
Line Voltage	Under 600VDC measurement
Dimension	194mm×145mm×40mm
Weight	780g
Working Environment	-15℃-45℃; below 80%rh
Storage Environment	-10℃-60℃; below 70%rh
Insulation Strength	AC3700V/rms (between core and shell)
Safety Rules	IEC1010-1, IEC1010-2-032, Pollution degree 2, CAT III(600V)

III. Principle and Structure

The sensor induced output a current **I1**, the current **I1** generate voltage **U** on the external sampling load resistance **RL**, so the measured current **I** can be calculated by measuring **U**. Output voltage 0-2.5V.



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|---|-------------------------|
| 1. 1. Positive signal voltage output (white wire) | 2. Ground (yellow wire) |
| 3. Positive power input (red wire) | 4. Output wire (2m) |
| 5. Trigger (open and close the clamp) | 6. Clamp |
| 7. Trigger (open and close the clamp) | 8. Power indicator |

	Clamp positive line or negative line separately to measure the DC current of this line. (Note: single wire)
	Clamp positive line and negative line together to measure leakage current of this DC line. (Note: 2 wires)
	Clamp earth wire of the DC system to measure the grounding line leakage current. (Note: single wire)

Manufactured by

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